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GRINDELIA OXYLEPIS (ASTERACEAE, ASTEREAE) NEW TO NEW MEXICO

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ABSTRACT

A large population of *Grindelia oxylepis* is reported from 2.6 km north of the Mexican border in southwestern Doña Ana Co., New Mexico. Plants occurred in a playa that apparently held water several times in 2014. This is the first report for this otherwise Mexican species in New Mexico and the second report for its occurrence in the USA. The species was first collected in the USA in 1946 in Presidio Co., Texas. If varieties are recognized in *G. oxylepis*, the New Mexico record represents the var. *oxylepis*. Plants are up to 1 m tall, taller than reported in the literature, and have leaves similar to plants from northern Chihuahua.

Recently while I was traveling within a few kilometers of the Mexican border on the "Border Highway" (Doña County Rd A003, a continuation of NM Highway 9 from the Luna County border eastward) I noticed a large population of a robust species of *Grindelia* that I did not recognize. This population occupied an estimated four hectares in the southwestern portion of a playa (a regional term for a shallow, temporary lake with a level or nearly level bottom) situated next to and north of the

Figure 1. The playa in southwestern Doña Ana Co., New Mexico, along north side of the "border highway," where *Grindelia oxylepis* was discovered. Brownish plants at margin of playa and plants in the water are *G. oxylepis*. Photo taken 24 September 2014, several days after heavy rain. Plants are now mostly in fruit. Dense, green plants in foreground are *Laennecia coulteri*.

road. The construction of the raised road across this playa about two decades ago now prevents precipitation runoff from the surrounding low desert hills to disperse across the larger portion of the playa to the south, as it probably did in the past. In the southwestern corner of the portion of the playa north of the highway water collects and stands for some time after significant rain (Fig. 1), as it apparently did several times in the late summer of 2014. This playa is readily apparent in Google Earth by entering the geographic coordinates given in the specimen citation below. The plants were identified as *Grindelia oxylepis* Greene, the first record for the species in New Mexico and apparently the second record for the USA.

Figure 2. A plant of *Grindelia oxylepis* at edge of playa, showing extensive branching. Photo taken 14 September 2014, at the time of collection. Plant is 1 m tall.

Figure 3. *Grindelia oxylepis* from Doña Ana Co., New Mexico. (Left) Flower head, showing straight or slightly spreading phyllaries subtended by a leaf with callus-tipped teeth; photo taken 14 September 2014. (Right) Cypselae from heads collected on 24 September 2014; bristle-like pappi have been dropped; scale at edge of photo is in millimeter increments.

Voucher. **USA. New Mexico.** Doña Ana Co.: Doña Co. Rd A003 (an easterly continuation of NM Hwy 9) between mile markers 121 and 122, 41.5 km W of terminus of hwy in Santa Teresa, 20 km E of Luna Co. line, 2.6 km N of the Mexican border, N side of hwy, 31° 48.374' N, 107° 06.160' W, in moist silt in and at edge of playa, with *Psilactis asteroides, Laennecia coulteri, Prosopis, Atriplex* around edge of playa, the *Grindelia* the most common species within playa, elev. 1235 m, 14 Sep 2014, *R. Spellenberg 14971* (NMC).

The New Mexico plants of *Grindelia oxylepis* are annual in duration and completely glabrous, as characteristic of the species, and leaf lobes are tipped by a small spinulose callus (Fig. 3), as characteristic of the species in northern Chihuahua (Nesom 1990, who suggested that this might reflect introgression with the the spinulose-tipped *G. arizonica*) — elsewhere over the range of *G. oxylepis*, the lobe tips are blunt and glandular-resinous. Plants are up to about 1 m tall, notably taller than the range given in either Henrickson (1997) or Strother and Wetter (2006), who noted, respectively, that plants may be up to 70 cm and 55 cm tall, and they are repeatedly branching from the base and distally (Fig. 2), in contrast to the observation by Nesom that they usually are single-stemmed from the base. Heads are hemispherical (Fig. 3) and more or less depressed upon drying. The cypselae (Fig. 3) are distinctively "blocky" and prominently rugose, readily dropping their 2-3 awns.

Mexican Gumweed (vernacular name from USDA website <http://plants.usda.gov/>) is widespread in Mexico, occurring from northern Chihuahua (about 90 km south of the USA border) to south-central Durango and central San Luis Potosí (as mapped by Nesom 1990), growing in moist, low, often disturbed areas (Henrickson & Johnston 1997). Nesom shows one location in Presidio Co., Texas, based upon a collection made on 9/25/1946 (*J.H. Russell 2087*, LL). No other USA collections appear on the University of Texas herbarium website (<http://www.biosci.utexas.edu/prc/Tex.html>). The USDA website also shows the species to be "native, [but with] no county data" in Arizona; no documenting specimens for Arizona were located in the herbaria database SEINET (<http://swbiodiversity.org/ seinet/index.php>). Thus, *Grindelia oxylepis* is documented for the second time nearly 70 years after its initial discovery in the USA by the collection from southern New Mexico, at the northernmost point in its known range, where it occurs in a population consisting of many hundreds of individuals.

The taxon represented in New Mexico would be *Grindelia oxylepis* Greene var. *oxylepis* in a classification followed by Henrickson and Johnston (1997). Steyermark (1934) erected the var. *eligulata* Steyerm. as a rayless variety within *G. oxylepis* that occurs from southern Chihuahua to southern Coahuila and adjacent Nuevo Leon, not reaching the USA. Nesom (1990) elevated that variety to species level as *G. eligulata* (Steyerm.) Nesom. In their treatment for Flora of North America, Strother and Wetter (2006) described only radiate heads in *G. oxylepis* and made no mention of alternative classifications of taxa in this complex. The name *G. oxylepis* does not appear in the Manual of Vascular Plants of Texas (Correll & Johnston 1970).

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